AMENDMENT TO RULES COMMITTEE PRINT 117– 13

OFFERED BY MS. HOULAHAN OF PENNSYLVANIA

Add after title LIII the following new title:

1 TITLE LIV—FEDERAL CYBERSE-2 CURITY WORKFORCE EXPAN-

3 **SION**

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4 SEC. 5401. FINDINGS.

5 Congress finds that—

(1) the need for qualified cybersecurity personnel is greater than ever, as demonstrated by the recent SolarWinds breach and the growing spate of ransomware attacks on critical infrastructure entities and State and local governments;

- (2) the Federal Government is facing a shortage of qualified cybersecurity personnel, as noted in a March 2019 Government Accountability Office report on critical staffing needs in the Federal cybersecurity workforce;
- (3) there is a national shortage of qualified cybersecurity personnel, and according to CyberSeek, a project supported by the National Initiative for Cybersecurity Education within the National Institute

1	of Standards and Technology, there are approxi-
2	mately 500,000 cybersecurity job openings around
3	the United States;
4	(4) in May 2021, the Department of Homeland
5	Security announced that the Department was initi-
6	ating a 60 day sprint to hire 200 cybersecurity per-
7	sonnel across the Department, with 100 of those
8	hires for the Cybersecurity and Infrastructure Secu-
9	rity Agency, to address a cybersecurity workforce
10	shortage; and
11	(5) the Federal Government needs to—
12	(A) expand the cybersecurity workforce
13	pipeline of the Federal Government to
14	sustainably close a Federal cybersecurity work-
15	force shortage; and
16	(B) work cooperatively with the private
17	sector and State and local government authori-
18	ties to expand opportunities for new cybersecu-
19	rity professionals.
20	SEC. 5402. CYBERSECURITY AND INFRASTRUCTURE SECU-
21	RITY APPRENTICESHIP PROGRAM.
22	Subtitle A of title XXII of the Homeland Security
23	Act of 2002 (6 U.S.C. 651 et seq.) is amended by adding
24	at the end the following:

1 "SEC. 2202A. APPRENTICESHIP PROGRAM.

2	"(a) Definitions.—In this section:
3	"(1) Area career and technical edu-
4	CATION SCHOOL.—The term 'area career and tech-
5	nical education school' has the meaning given the
6	term in section 3 of the Carl D. Perkins Career and
7	Technical Education Act of 2006 (20 U.S.C. 2302).
8	"(2) COMMUNITY COLLEGE.—The term 'com-
9	munity college' means a public institution of higher
10	education at which the highest degree that is pre-
11	dominantly awarded to students is an associate's de-
12	gree, including—
13	"(A) a 2-year Tribal College or and Uni-
14	versity, as defined in section 316 of the Higher
15	Education Act of 1965 (20 U.S.C. 1059c); and
16	"(B) a public 2-year State institution of
17	higher education.
18	"(3) Cybersecurity work roles.—The term
19	'cybersecurity work roles' means the work roles out-
20	lined in the National Initiative for Cybersecurity
21	Education Cybersecurity Workforce Framework
22	(NIST Special Publication 800–181), or any suc-
23	cessor framework.
24	"(4) Education and training provider.—
25	The term 'education and training provider' means—

1	"(A) an area career and technical edu-
2	cation school;
3	"(B) an early college high school;
4	"(C) an educational service agency;
5	"(D) a high school;
6	"(E) a local educational agency or State
7	educational agency;
8	"(F) a Tribal educational agency, Tribally
9	controlled college or university, or Tribally con-
10	trolled postsecondary career and technical insti-
11	tution;
12	"(G) a postsecondary educational institu-
13	tion;
14	"(H) a minority-serving institution;
15	"(I) a provider of adult education and lit-
16	eracy activities under the Adult Education and
17	Family Literacy Act (29 U.S.C. 3271 et seq.);
18	"(J) a local agency administering plans
19	under title I of the Rehabilitation Act of 1973
20	(29 U.S.C. 720 et seq.), other than section 112
21	or part C of that title (29 U.S.C. 732, 741);
22	"(K) a related instruction provider, includ-
23	ing a qualified intermediary acting as a related
24	instruction provider as approved by a registra-
25	tion agency;

1	"(L) a Job Corps center, as defined in sec-
2	tion 142 of the Workforce Innovation and Op-
3	portunity Act (29 U.S.C. 3192); or
4	"(M) a consortium of entities described in
5	any of subparagraphs (A) through (L).
6	"(5) Eligible entity.—
7	"(A) IN GENERAL.—The term 'eligible en-
8	tity' means—
9	"(i) a program sponsor;
10	"(ii) a State workforce development
11	board or State workforce agency, or a local
12	workforce development board or local
13	workforce development agency;
14	"(iii) an education and training pro-
15	vider;
16	"(iv) if the applicant is in a State
17	with a State apprenticeship agency, such
18	State apprenticeship agency;
19	"(v) an Indian Tribe or Tribal organi-
20	zation;
21	"(vi) an industry or sector partner-
22	ship, a group of employers, a trade asso-
23	ciation, or a professional association that
24	sponsors or participates in a program
25	under the national apprenticeship system;

1	"(vii) a Governor of a State;
2	"(viii) a labor organization or joint
3	labor-management organization; or
4	"(ix) a qualified intermediary.
5	"(B) Sponsor requirement.—Not fewer
6	than 1 entity described in subparagraph (A)
7	shall be the sponsor of a program under the na-
8	tional apprenticeship system.
9	"(6) Institution of higher education.—
10	The term 'institution of higher education' has the
11	meaning given the term in section 101 of the Higher
12	Education Act of 1965 (20 U.S.C. 1001).
13	"(7) Local Educational Agency; sec-
14	ONDARY SCHOOL.—The terms 'local educational
15	agency' and 'secondary school' have the meanings
16	given those terms in section 8101 of the Elementary
17	and Secondary Education Act of 1965 (20 U.S.C.
18	7801).
19	"(8) Local workforce development
20	BOARD.—The term 'local workforce development
21	board' has the meaning given the term 'local board'
22	in section 3 of the Workforce Innovation and Oppor-
23	tunity Act (29 U.S.C. 3102).
24	"(9) Nonprofit organization.—The term
25	'nonprofit organization' means an organization that

1	is described in section 501(c) of the Internal Rev-
2	enue Code of 1986 and exempt from taxation under
3	section 501(a) of such Code.
4	"(10) Provider of adult education.—The
5	term 'provider of adult education' has the meaning
6	given the term 'eligible provider' in section 203 of
7	the Adult Education and Family Literacy Act (29
8	U.S.C. 3272).
9	"(11) Related instruction.—The term 're-
10	lated instruction' means an organized and system-
11	atic form of instruction designed to provide an indi-
12	vidual in an apprenticeship program with the knowl-
13	edge of the technical subjects related to the intended
14	occupation of the individual after completion of the
15	program.
16	"(12) Sponsor.—The term 'sponsor' means
17	any person, association, committee, or organization
18	operating an apprenticeship program and in whose
19	name the program is, or is to be, registered or ap-
20	proved.
21	"(13) State apprenticeship agency.—The
22	term 'State apprenticeship agency' has the meaning
23	given the term in section 29.2 of title 29, Code of
24	Federal Regulations, or any corresponding similar
25	regulation or ruling.

1	"(14) State workforce development
2	BOARD.—The term 'State workforce development
3	board' has the meaning given the term 'State board'
4	in section 3 of the Workforce Innovation and Oppor-
5	tunity Act (29 U.S.C. 3102).
6	"(15) WIOA TERMS.—The terms 'career plan-
7	ning', 'community-based organization', 'economic de-
8	velopment agency', 'industry or sector partnership',
9	'on-the-job training', 'recognized postsecondary cre-
10	dential', and 'workplace learning advisor' have the
11	meanings given those terms in section 3 of the
12	Workforce Innovation and Opportunity Act (29
13	U.S.C. 3102).
14	"(16) Qualified intermediary.—
15	"(A) IN GENERAL.—The term 'qualified
16	intermediary' means an entity that dem-
17	onstrates expertise in building, connecting, sus-
18	taining, and measuring the performance of
19	partnerships described in subparagraph (B) and
20	serves program participants and employers
21	by—
22	"(i) connecting employers to programs
23	under the national apprenticeship system;
24	"(ii) assisting in the design and imple-
25	mentation of such programs, including cur-

1	riculum development and delivery for re-
2	lated instruction;
3	"(iii) supporting entities, sponsors, or
4	program administrators in meeting the
5	registration and reporting requirements of
6	this Act;
7	"(iv) providing professional develop-
8	ment activities such as training to men-
9	tors;
10	"(v) supporting the recruitment, re-
11	tention, and completion of potential pro-
12	gram participants, including nontraditional
13	apprenticeship populations and individuals
14	with barriers to employment;
15	"(vi) developing and providing person-
16	alized program participant supports, in-
17	cluding by partnering with organizations to
18	provide access to or referrals for supportive
19	services and financial advising;
20	"(vii) providing services, resources,
21	and supports for development, delivery, ex-
22	pansion, or improvement of programs
23	under the national apprenticeship system;
24	or
25	"(viii) serving as a program sponsor.

1	"(B) Partnerships.—The term 'partner-
2	ships described in subparagraph (B)' means
3	partnerships among entities involved in, or ap-
4	plying to participate in, programs under the na-
5	tional apprenticeship system, including—
6	"(i) industry or sector partnerships;
7	"(ii) partnerships among employers,
8	joint labor-management organizations,
9	labor organizations, community-based or-
10	ganizations, industry associations, State or
11	local workforce development boards, edu-
12	cation and training providers, social service
13	organizations, economic development orga-
14	nizations, Indian Tribes or Tribal organi-
15	zations, one-stop operators, one-stop part-
16	ners, or veterans service organizations in
17	the State workforce development system;
18	or
19	"(iii) partnerships among 1 or more
20	of the entities described in clauses (i) and
21	(ii).
22	"(b) Establishment of Apprenticeship Pro-
23	GRAMS.—Not later than 2 years after the date of enact-
24	ment of this section, the Director may establish 1 or more
25	apprenticeship programs as described in subsection (c).

1	"(c) Apprenticeship Programs Described.—An
2	apprenticeship program described in this subsection is an
3	apprenticeship program that—
4	"(1) leads directly to employment in—
5	"(A) a cybersecurity work role with the
6	Agency; or
7	"(B) a position with a company or other
8	entity provided that the position is—
9	"(i) certified by the Director as con-
10	tributing to the national cybersecurity of
11	the United States; and
12	"(ii) funded at least in majority part
13	through a contract, grant, or cooperative
14	agreement with the Agency;
15	"(2) is focused on competencies and related
16	learning necessary, as determined by the Director, to
17	meet the immediate and ongoing needs of cybersecu-
18	rity work roles at the Agency; and
19	"(3) is registered with and approved by the Of-
20	fice of Apprenticeship of the Department of Labor
21	or a State apprenticeship agency pursuant to the
22	Act of August 16, 1937 (commonly known as the
23	'National Apprenticeship Act'; 29 U.S.C. 50 et seq.).
24	"(d) Coordination.—In the development of an ap-
25	prenticeships program under this section, the Director

1	shall consult with the Secretary of Labor, the Director of
2	the National Institute of Standards and Technology, the
3	Secretary of Defense, the Director of the National Science
4	Foundation, and the Director of the Office of Personnel
5	Management to leverage existing resources, research, com-
6	munities of practice, and frameworks for developing cyber-
7	security apprenticeship programs.
8	"(e) Optional Use of Grants or Cooperative
9	AGREEMENTS.—An apprenticeship program under this
10	section may include entering into a contract or cooperative
11	agreement with or making a grant to an eligible entity
12	if determined appropriate by the Director based on the
13	eligible entity—
14	"(1) demonstrating experience in implementing
15	and providing career planning and career pathways
16	toward apprenticeship programs;
17	"(2) having knowledge of cybersecurity work-
18	force development;
19	"(3) being eligible to enter into a contract or
20	cooperative agreement with or receive grant funds
21	from the Agency as described in this section;
22	"(4) providing students who complete the ap-
23	prenticeship program with a recognized postsec-
24	ondary credential;

1	"(5) using related instruction that is specifically
2	aligned with the needs of the Agency and utilizes
3	workplace learning advisors and on-the-job training
4	to the greatest extent possible; and
5	"(6) demonstrating successful outcomes con-
6	necting graduates of the apprenticeship program to
7	careers relevant to the program.
8	"(f) Applications.—If the Director enters into an
9	arrangement as described in subsection (e), an eligible en-
10	tity seeking a contract, cooperative agreement, or grant
11	under the program shall submit to the Director an applica-
12	tion at such time, in such manner, and containing such
13	information as the Director may require.
14	"(g) Priority.—In selecting eligible entities to re-
15	ceive a contract, grant, or cooperative agreement under
16	this section, the Director may prioritize an eligible entity
17	that—
18	"(1) is a member of an industry or sector part-
19	nership;
20	"(2) provides related instruction for an appren-
21	ticeship program through—
22	"(A) a local educational agency, a sec-
23	ondary school, a provider of adult education, an
24	area career and technical education school, or
25	an institution of higher education; or

1	"(B) an apprenticeship program that was
2	registered with the Department of Labor or a
3	State apprenticeship agency before the date on
4	which the eligible entity applies for the grant
5	under subsection (g);
6	"(3) works with the Secretary of Defense, the
7	Secretary of Veterans Affairs, or veterans organiza-
8	tions to transition members of the Armed Forces
9	and veterans to apprenticeship programs in a rel-
10	evant sector; or
11	"(4) plans to use the grant to carry out the ap-
12	prenticeship program with an entity that receives
13	State funding or is operated by a State agency.
14	"(h) Technical Assistance.—The Director shall
15	provide technical assistance to eligible entities to leverage
16	the existing job training and education programs of the
17	Agency and other relevant programs at appropriate Fed-
18	eral agencies.
19	"(i) Excepted Service.—Participants in the pro-
20	gram may be entered into cybersecurity-specific excepted
21	service positions as determined appropriate by the Direc-
22	tor and authorized by section 2208.
23	"(j) Report.—
24	"(1) In general.—Not less than once every 2
25	years after the establishment of an apprenticeship

1	program under this section, the Director shall sub-
2	mit to Congress a report on the program, includ-
3	ing—
4	"(A) a description of—
5	"(i) any activity carried out by the
6	Agency under this section;
7	"(ii) any entity that enters into a con-
8	tract or agreement with or receives a grant
9	from the Agency under subsection (e);
10	"(iii) any activity carried out using a
11	contract, agreement, or grant under this
12	section as described in subsection (e); and
13	"(iv) best practices used to leverage
14	the investment of the Federal Government
15	under this section; and
16	"(B) an assessment of the results achieved
17	by the program, including the rate of continued
18	employment at the Agency for participants
19	after completing an apprenticeship program
20	carried out under this section.
21	"(k) Performance Reports.—Not later than 1
22	year after the establishment of an apprenticeship program
23	under this section, and annually thereafter, the Director
24	shall submit to Congress and the Secretary of Labor a
25	report on the effectiveness of the program based on the

1	accountability measures described in clauses (i) and (ii)
2	of section 116(b)(2)(A) of the Workforce Innovation and
3	Opportunity Act (29 U.S.C. 3141(b)(2)(A)).
4	"(l) Authorization of Appropriations.—There is
5	authorized to be appropriated to the Agency such sums
6	as necessary to carry out this section.".
7	SEC. 5403. PILOT PROGRAM ON CYBER TRAINING FOR VET
8	ERANS AND MEMBERS OF THE ARMED
9	FORCES TRANSITIONING TO CIVILIAN LIFE.
10	(a) Definitions.—In this section:
11	(1) Eligible individual.—The term "eligible
12	individual" means an individual who is—
13	(A) a member of the Armed Forces
14	transitioning from service in the Armed Forces
15	to civilian life; or
16	(B) a veteran.
17	(2) Portable Credential.—The term "port-
18	able credential"—
19	(A) means a documented award by a re-
20	sponsible and authorized entity that has deter-
21	mined that an individual has achieved specific
22	learning outcomes relative to a given standard
23	and

1	(B) includes a degree, diploma, license,
2	certificate, badge, and professional or industry
3	certification that—
4	(i) has value locally and nationally in
5	labor markets, educational systems, or
6	other contexts;
7	(ii) is defined publicly in such a way
8	that allows educators, employers, and other
9	individuals and entities to understand and
10	verify the full set of skills represented by
11	the credential; and
12	(iii) enables a holder of the credential
13	to move vertically and horizontally within
14	and across training and education systems
15	for the attainment of other credentials.
16	(3) Veteran.—The term "veteran" has the
17	meaning given the term in section 101 of title 31,
18	United States Code.
19	(4) Work-based learning.—The term "work-
20	based learning" has the meaning given the term in
21	section 3 of the Carl D. Perkins Career and Tech-
22	nical Education Act of 2006 (20 U.S.C. 2302).
23	(b) Establishment.—Not later than 1 year after
24	the date of enactment of this Act, the Secretary of Vet-
25	erans Affairs shall establish a pilot program under which

1	the Secretary shall provide cyber-specific training for eligi-
2	ble individuals.
3	(c) Elements.—The pilot program established
4	under subsection (b) shall incorporate—
5	(1) virtual platforms for coursework and train-
6	ing;
7	(2) hands-on skills labs and assessments;
8	(3) Federal work-based learning opportunities
9	and programs; and
10	(4) the provision of portable credentials to eligi-
11	ble individuals who graduate from the pilot program.
12	(d) Alignment With NICE Workforce Frame-
13	WORK FOR CYBERSECURITY.—The pilot program estab-
14	lished under subsection (b) shall align with the taxonomy,
15	including work roles and associated tasks, knowledge, and
16	skills, from the National Initiative for Cybersecurity Edu-
17	cation Workforce Framework for Cybersecurity (NIST
18	Special Publication 800–181), or any successor frame-
19	work.
20	(e) Coordination.—
21	(1) Training, platforms, and frame-
22	WORKS.—In developing the pilot program under sub-
23	section (b), the Secretary of Veterans Affairs shall
24	coordinate with the Secretary of Defense, the Sec-
25	retary of Homeland Security, the Secretary of

1	Labor, and the Director of the Office of Personnel
2	Management to evaluate and, where possible, lever-
3	age existing training, platforms, and frameworks of
4	the Federal Government for providing cyber edu-
5	cation and training to prevent duplication of efforts.
6	(2) Federal Work-Based Learning oppor-
7	TUNITIES AND PROGRAMS.—In developing the Fed-
8	eral work-based learning opportunities and programs
9	required under subsection (c)(3), the Secretary of
10	Veterans Affairs shall coordinate with the Secretary
11	of Defense, the Secretary of Homeland Security, the
12	Secretary of Labor, the Director of the Office of
13	Personnel Management, and the heads of other ap-
14	propriate Federal agencies to identify or create
15	interagency opportunities that will enable the pilot
16	program established under subsection (b) to—
17	(A) bridge the gap between knowledge ac-
18	quisition and skills application for participants;
19	and
20	(B) give participants the experience nec-
21	essary to pursue Federal employment.
22	(f) Resources.—
23	(1) In general.—In any case in which the
24	pilot program established under subsection (b)—

1	(A) uses a program of the Department of
2	Veterans Affairs or platforms and frameworks
3	described in subsection (e)(1), the Secretary of
4	Veterans Affairs shall take such actions as may
5	be necessary to ensure that those programs,
6	platforms, and frameworks are expanded and
7	resourced to accommodate usage by eligible in-
8	dividuals participating in the pilot program; or
9	(B) does not use a program of the Depart-
10	ment of Veterans Affairs or platforms and
11	frameworks described in subsection (e)(1), the
12	Secretary of Veterans Affairs shall take such
13	actions as may be necessary to develop or pro-
14	cure programs, platforms, and frameworks nec-
15	essary to carry out the requirements of sub-
16	section (c) and accommodate the usage by eligi-
17	ble individuals participating in the pilot pro-
18	gram.
19	(2) Actions.—Actions described in paragraph
20	(1) may include providing additional funding, staff,
21	or other resources to—
22	(A) provide administrative support for
23	basic functions of the pilot program;

1	(B) ensure the success and ongoing en-
2	gagement of eligible individuals participating in
3	the pilot program;
4	(C) connect graduates of the pilot program
5	to job opportunities within the Federal Govern-
6	ment; and
7	(D) allocate dedicated positions for term
8	employment to enable Federal work-based
9	learning opportunities and programs for partici-
10	pants to gain the experience necessary to pur-
11	sue permanent Federal employment.
12	SEC. 5404. FEDERAL WORKFORCE ASSESSMENT EXTEN-
13	SION.
14	Section 304(a) of the Federal Cybersecurity Work-
15	force Assessment Act of 2015 (5 U.S.C. 301 note) is
16	amended, in the matter preceding paragraph (1), by strik-
17	ing "2022" and inserting "2025".
18	SEC. 5405. TITLE XXII TECHNICAL AND CLERICAL AMEND
19	MENTS.
20	(a) Technical Amendments.—
21	(1) Homeland security act of 2002.—Sub-
22	title A of title XXII of the Homeland Security Act
23	of 2002 (6 U.S.C. 651 et seq.) is amended—
24	(A) in the first section 2215 (6 U.S.C.
25	665; relating to the duties and authorities relat-

1	ing to .gov internet domain), by amending the
2	section enumerator and heading to read as fol-
3	lows:
4	"SEC. 2215. DUTIES AND AUTHORITIES RELATING TO .GOV
5	INTERNET DOMAIN.";
6	(B) in the second section 2215 (6 U.S.C.
7	665b; relating to the joint cyber planning of-
8	fice), by amending the section enumerator and
9	heading to read as follows:
10	"SEC. 2216. JOINT CYBER PLANNING OFFICE.";
11	(C) in the third section 2215 (6 U.S.C.
12	665c; relating to the Cybersecurity State Coor-
13	dinator), by amending the section enumerator
14	and heading to read as follows:
15	"SEC. 2217. CYBERSECURITY STATE COORDINATOR.";
16	(D) in the fourth section 2215 (6 U.S.C.
17	665d; relating to Sector Risk Management
18	Agencies), by amending the section enumerator
19	and heading to read as follows:
20	"SEC. 2218. SECTOR RISK MANAGEMENT AGENCIES.";
21	(E) in section 2216 (6 U.S.C. 665e; relat-
22	ing to the Cybersecurity Advisory Committee),
23	by amending the section enumerator and head-
24	ing to read as follows:

1	"SEC. 2219. CYBERSECURITY ADVISORY COMMITTEE."; and
2	(F) in section 2217 (6 U.S.C. 665f; relat-
3	ing to Cybersecurity Education and Training
4	Programs), by amending the section enu-
5	merator and heading to read as follows:
6	"SEC. 2220. CYBERSECURITY EDUCATION AND TRAINING
7	PROGRAMS.".
8	(2) Consolidated appropriations act,
9	2021.—Paragraph (1) of section 904(b) of division U
10	of the Consolidated Appropriations Act, 2021 (Pub-
11	lic Law 116–260) is amended, in the matter pre-
12	ceding subparagraph (A), by inserting "of 2002"
13	after "Homeland Security Act".
14	(b) CLERICAL AMENDMENT.—The table of contents
15	in section 1(b) of the Homeland Security Act of 2002 is
16	amended by striking the items relating to sections 2214
17	through 2217 and inserting the following new items:
	"Sec. 2214. National Asset Database. "Sec. 2215. Duties and authorities relating to .gov internet domain. "Sec. 2216. Joint cyber planning office.

[&]quot;Sec. 2220A. Apprenticeship program.".



[&]quot;Sec. 2217. Cybersecurity State Coordinator.

[&]quot;Sec. 2218. Sector Risk Management Agencies.

[&]quot;Sec. 2219. Cybersecurity Advisory Committee.

[&]quot;Sec. 2220. Cybersecurity Education and Training Programs.